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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,393	10/18/2001	Cary Lee Bates	ROC920010163US1	7201

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EXAMINER

ZHEN, WEI Y

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/982,393	Applicant(s) BATES ET AL.	
	Examiner Wei Y Zhen	Art Unit 2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the application filed on 10/18/2001.
2. Claims 1-14 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over
“Coverability Analysis Using Symbolic Model Checking” (NNRD 40785) in view of Carter et al, U.S. Patent No. 6,249,907.

As per claim 1, NNRD 40785 discloses substantially as claimed, providing warning for unreachable code by a debugger, determining whether or not said code is unreachable, in response to a determination that the code is unreachable, displaying an warning to a user by the debugger (pp. 1-2, “an analysis of a Model aimed at identifying unreachable code....a warning on the existence of dead-code is created for every statement that can not be reached”).

NNRD 40875 does not explicitly disclose the code is set as breakpoint.

However, Carter et al discloses monitoring the execution of code at a breakpoint (Fig. 3 and col. 5 lines 31 to col. 6 line 29).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching of Carter et al into the teaching of NNRD 40785 to have the code to be

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set as a breakpoint because it would provide the user the code analysis result to facilitate the debugging process.

As per claim 2, NNRD 40875 does not explicitly disclose the warning is highlighting. Official Notice is taken that using highlight for warning was well known in the art at the time the invention was made. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching of the well-known knowledge into the teaching of NNRD 40875 to use highlight for warning because it provides a user-friendly interface for the user to debug the program.

As per claims 3-4, NNRD 40875 discloses identifying unreachable code (pp. 1-2) note that the codes inherently including various types, such as unreachable statement entry, or the unreachable statement entry is associate with a cause statement entry.

As per claim 5, NNRD 40875 does not explicitly disclose the unreachable statement list is generated by a checkblock() function call. However, Carter et al discloses inserting hook function call for debugging (col. 5 lines 15 to col. 6 line 29).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching of Carter et al into the teaching of NNRD 40875 to have the unreachable statement list be generated by a checkblock() function call because it would provide the user the code analysis result to facilitate the debugging process.

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Claims 6-10 are rejected for the reason set forth in the rejections of claims 1-5.

Claims 11-14 are rejected for the reason set forth in the rejections of claims 1-4.


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wei Y Zhen whose telephone number is (703) 305-0437. The examiner can normally be reached on Monday-Friday, 8 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wei Zhen
Primary Examiner
7/7/2004


WEI Y. ZHEN
PRIMARY EXAMINER

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